

THE INTERNATIONAL ASSOCIATION OF GERONTOLOGY AND RAPID PROGRESS OF GERONTOLOGY*

BY

V. KORENCHEVSKY, M.D.

(From the Oxford Gerontological Research Unit, Oxford)

Although this paper considers rapid progress of gerontology and the International Gerontological Association, the scheme presented can be applied to any international biological or medical association and congress.

Basis of the Report

The final solution of all basic gerontological problems depends entirely on biological and medical research in this field; and this applies to other aspects of gerontology, such as the socio-economic, and their practical applications in life. In this paper, however, only methods for the rapid progress of gerontological medical and biological research work are considered. This by no means ignores the great importance of the socio-economic aspects of gerontology. It is simply that the medical and biological research must receive a certain amount of unavoidable priority; otherwise gerontology, and in particular geriatrics, will preserve artificially the sickly and miserable plants of senility in their artificial greenhouses. If gerontological research should lag behind the socio-economic welfare measures, the proportion of useless old people among the nations will steadily increase, and at a tremendous cost useless years will be added to their lives and not useful life to their years.

Scientific and medical research workers must leave the care of old people and all other aspects of socio-economic problems to the governments, municipalities, and welfare societies. Science and medicine must concentrate all their efforts towards a rapid advance in gerontological experimental and clinical research. Of course, research workers will gladly give advice and assistance, if asked for it, to the agencies that are engaged in socio-economic gerontology.

Organization of the Man-power for Gerontological Research

As in every venture, man-power is as important as the venture itself. This problem, in its main aspects, was solved at the First International Gerontological Congress in Liège when we established the International Association of Gerontology.

In this Association are united all the gerontological and geriatric societies already established in most civilized countries. In those countries in which such societies do not exist, we are sure they will be formed in the near future and will join the Association. Even at present a powerful and well-organized scientific army is available for attacking the basic research problems of gerontology.

This was the aim of the First International Congress, and for its successful achievement we must be grateful to Professor L. Brull, who was the President of the First Congress and the first President of the Association.

Aims of the Next International Gerontological Congresses

It is logical to consider that there are two urgent aims of the future congresses—to equip the already formed scientific

army for a battle with the research problems of ageing and to move this army into action. Without proper equipment an army cannot fight. It is obvious that only the ways and means of achieving these aims could be discussed and approved at the Congress. The actual realization of these aims and the leadership in this great scientific battle have to be entrusted to the charge of the International Association of Gerontology.

It is most desirable that the Association, although responsible to gerontological societies, should not only organize the International Congresses but also report its own activities for their consideration and criticism. The more brains engaged in an active work the better for the venture. For this reason the Association will draw new inspirations and ideas from the congresses, and find not only encouragement but, let us hope, the necessary active support. Moreover, there is a danger that the Association, and especially its governing body, may become senile; but at the congresses they may find new and vigorous blood, absorb it, and thus become rejuvenated.

Organization of the International Gerontological Congresses

At present the international biological and medical congresses take the form either of large symposia organized on a world-wide scale, or, more rarely, of so-called institutes. Both consist of numerous reports, which later are published and can be read. Moreover, for critical consideration of their value it is much more convenient to read them than to listen to them; especially is this so since many reports are made in a language foreign to the speakers. Also, while many of those attending the congresses can easily read foreign languages, they experience great difficulty in understanding them when spoken.

In spite of all this, the usual congresses do some definite and important work: they spread a special knowledge among practitioners not engaged in research work and the public at large; and they provide an opportunity of establishing personal contact both between research workers and practitioners, and between research workers themselves.

Such congresses, however, contribute comparatively little to the rapid progress of research work, and therefore do not fully justify the heavy expenses entailed, the extensive organizing work done, and other considerable difficulties involved—for example, travelling by the delegates.

It is desirable, therefore, to adjust the congresses to the needs of the research worker, at the same time retaining their other useful points. To this end no revolutionary methods are advocated, but only a desirable adjustment and improvement in organization.

Research Sessions of the Congress

It is desirable, and probably necessary, to adapt the sessions of international congresses for the service of two main types of members. The usual "symposia sessions" should be preserved as being of most use to and interest for the practitioners in the fields of medicine and biology. Special "research sessions," however, should be introduced for research workers, to run simultaneously with the former. These research sessions are actually "brains trusts." They will consist chiefly of free round-table discussions by the specialists, for each specialty separately and also for the joint meetings of various specialties.

The aims of these sessions will be the organization and promotion of gerontological research work—in particular, those problems of gerontology which were investigated insufficiently or not at all; consideration will also be given to schemes and methods which might be used for investigation of these problems. In this way the most promising research schemes will be evaluated and recommended. In the following years the progress achieved in research will be discussed and the necessary adjustments and alterations made. The efficient work of these "brains trust" sessions is due not only to the collection of the individual opinions of

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the specialists; much more is it due to the specialists' combined efforts to obtain the best possible solution of the problems.

In fact, the "research sessions" have to be similar in organization to those international war committees which so successfully achieved the splitting of the atom. In a more general way this was suggested in my previous papers (Korenchevsky, 1946, 1947, 1948, 1950a, 1950b); and for the same idea of co-operation the whole organization of gerontological societies was devised and started in 1939 as an *International Club for Research on Ageing*. In 1950, for several good reasons, the club was superseded by the International Gerontological Association.

We are most grateful to Professor E. V. Cowdry, who, first in the history of international scientific congresses, had vision of the future and the necessary authority to introduce these sessions, so far in an abbreviated form, into the Second International Gerontological Congress.

Desirability of Permanency in the Work of "Research Session Committee"

There is little if any hope of completing the difficult task of the session in a few hours at the congress. Therefore it is desirable that the session should not only work through the whole duration of the congress but also become a permanent organization and continue its work in the intervals between the congresses. It can be given any name which the congress or the Association finds suitable. To avoid confusion it will perhaps be appropriate to call it simply "research session or committee of the International Association of Gerontology," and to use this name even during the congresses. It is desirable that in the intervals between the congresses, if the finances allow, the meetings of the session should be held once a year, preferably in those cities in which the large research centres interested in gerontology are situated. An executive committee of the session should meet more often.

Other Ways and Means for Rapid Progress of Gerontological Research

These have already been discussed in previous papers (Korenchevsky, 1946, 1947, 1948, 1950a, 1950b). They have been approved by the British Society for Research on Ageing. The proposed measures are similar to, or identical with, those discussed in the *Journal of Gerontology* (1948). The necessary measures may be summarized as follows:

1. Large funds must be available for financing gerontological research in all its manifold aspects.

2. In each civilized country permanent experimental and clinical laboratories or institutes for research on ageing have to be established, if they do not already exist, and be provided with adequate resources.

3. The formation of a sufficient number of groups of research workers, who would specialize in gerontological or geriatric research, is necessary. Obviously points 1 and 2 are essential for this purpose.

4. It is essential that the existing biological and medical laboratories and research hospitals should co-operate in gerontological research. Long-term grants must be provided for them.

Referring to my previous papers for the details concerning these measures, I should like to add a few words about the urgency of collecting the funds for gerontological research. Sooner or later the various governments must contribute to this research if they intend to prevent the prolongation of a useless life span and the premature ageing of their peoples.

Since it is difficult to arrange otherwise, voluntary contributions have to be collected by specially established foundations, national and international. One strong point in favour of an immediate start in establishing such foundations is that for every man there is a chance, sometimes a good one, of escaping cancer, arteriosclerosis, poliomyelitis, or some other dread disease; but at present nobody can avoid *premature*

and *abnormal* old age and *premature* death. Therefore our appeal is likely to be understood and supported especially by elderly persons who know what present-day old age means.

Executive Function of the International Association of Gerontology

It is obvious that the Association, strong in its organized unity and co-operative brain-power, representing in its special capacity many countries and nations and therefore possessing the greatest possible authority, is the only agency which can achieve the tasks outlined above. Since the governing body is an actual executor of the Association, especial care has to be taken in making this body truly representative of the respective gerontological societies. The closest co-operation between the governing body and research sessions is also desirable.

It must be recognized that the tasks both of the governing body and of the research sessions will be very difficult; indeed, this activity of the research sessions is the first attempt of its kind in the history of international co-operation in biology and medicine. The reasons why such a very difficult scheme is suggested are: (1) on the basis of experiments performed by other investigators and myself it is now possible to state that there are definite and practicable possibilities of research into the prevention of premature and abnormal old age and premature death; and (2) I personally have little doubt that, unless "research sessions" are introduced, the International Gerontological Congresses are bound to fail in their attempts to organize a rapid advance in research into old age.

Summary

A scheme to promote the rapid progress of gerontological research is suggested; the main items of this are:

1. The establishment of a permanent research session or committee which would work during and between the International Gerontological Congresses. The organization of this session or committee should be somewhat similar to that of the international committee for splitting the atom.

2. Provision of large funds both for gerontological research and for organizing work, in particular by means of the establishment of special foundations, national and international.

3. Formation of a sufficient number of groups of research workers in gerontology.

4. Co-operation of different existing biological and medical laboratories and research hospitals in gerontological research.

5. The International Association of Gerontology, in particular its governing body, is suggested as the executive agency of the scheme.

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It has been known for some time that, although eserine and prostigmin both inhibit cholinesterase, only eserine applied to a nerve axon stops its activity. Likewise, stilbamidine, which has a curare-like action, also produces block, whereas D-tubocurarine does not. It has now been shown (*Nature*, February 2, p. 190) that this is a permeability effect. If the substances in very low concentration are injected into the insides of nerve axons they all cause block. The previous inactivity of some substances is the result of their inability to penetrate unaided into the axon and reach its impulse-producing machinery.